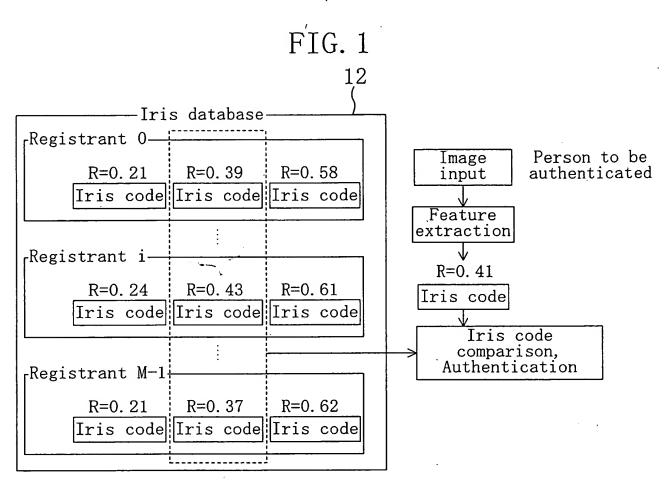
Title: PERSONAL AUTHENTICATION METHOD, IRIS REGISTRATION DEVICE, IRIS AUTHENTICATION DEVICE, AND PERSONAL AUTHENTICATION PROGRAM

Inventors: Kenji KONDO, et al. Atty. Ref.: 5077-000222/NP

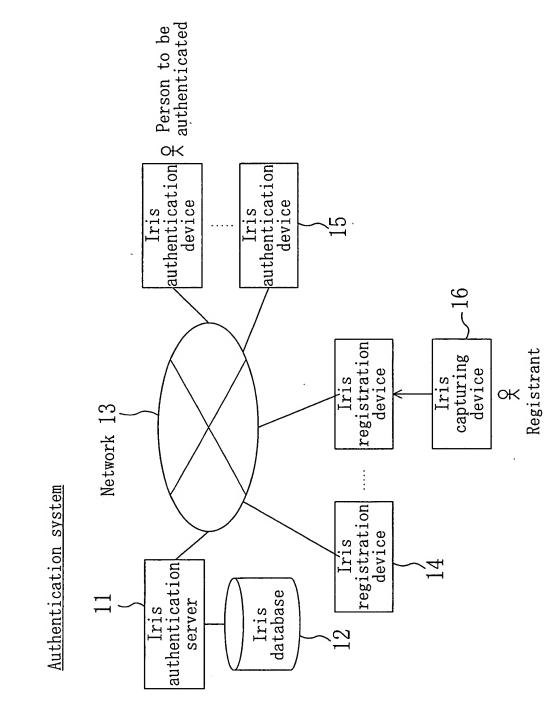
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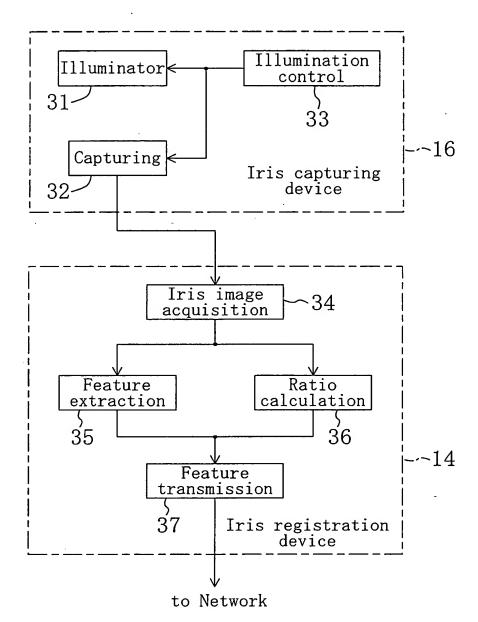
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Title: PERSONAL AUTHENTICATION METHOD, IRIS REGISTRATION DEVICE, IRIS AUTHENTICATION DEVICE, AND PERSONAL AUTHENTICATION PROGRAM
Inventors: Kenji KONDO, et al.
Atty. Ref.: 5077-000222/NP

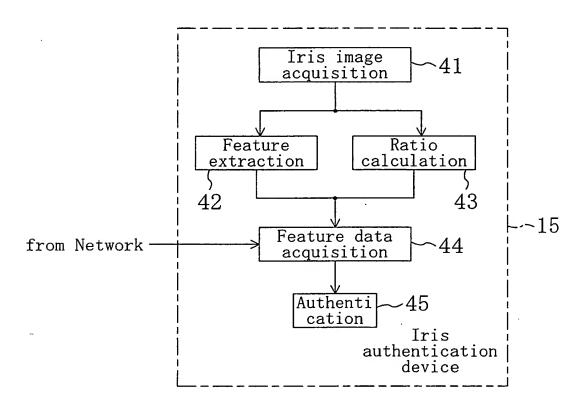
FIG. 3



Title: PERSONAL AUTHENTICATION METHOD, IRIS REGISTRATION DEVICE, IRIS AUTHENTICATION DEVICE, AND PERSONAL AUTHENTICATION PROGRAM
Inventors: Kenji KONDO, et al.
Atty. Ref.: 5077-000222/NP

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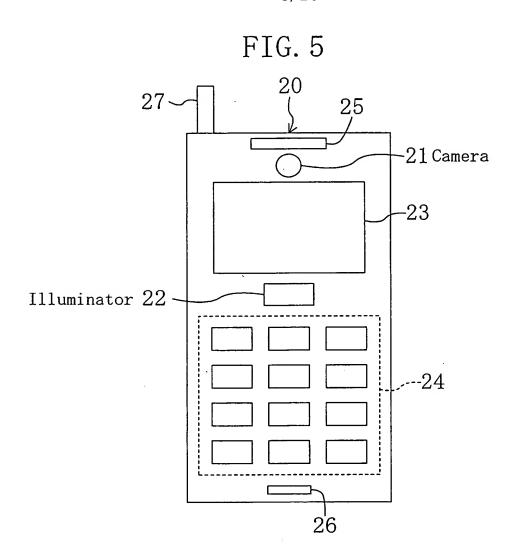
FIG. 4



Title: PERSONAL AUTHENTICATION METHOD, IRIS REGISTRATION DEVICE, IRIS AUTHENTICATION DEVICE, AND PERSONAL AUTHENTICATION PROGRAM

Inventors: Kenji KONDO, et al. Atty. Ref.: 5077-000222/NP

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Title: PERSONAL AUTHENTICATION METHOD, IRIS REGISTRATION DEVICE, IRIS

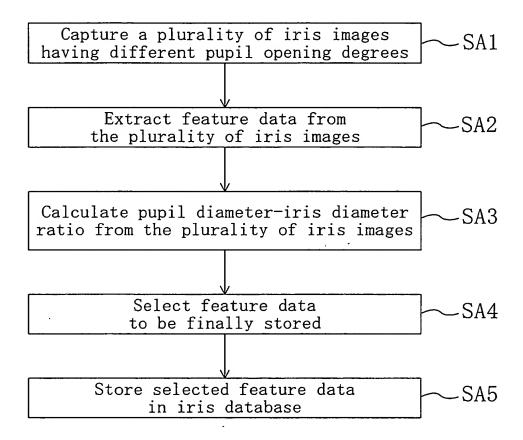
Inventors: Kenji KONDO, et al. Atty. Ref.: 5077-000222/NP

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FIG. 6

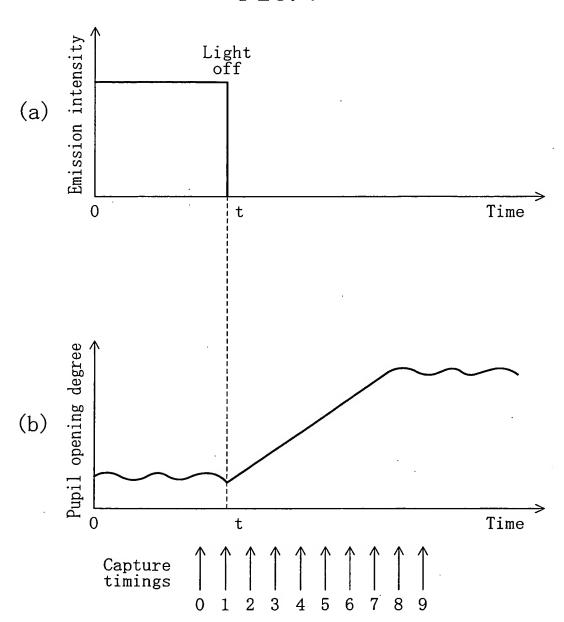
Registration process



Title: PERSONAL AUTHENTICATION METHOD, IRIS REGISTRATION DEVICE, IRIS AUTHENTICATION DEVICE, AND PERSONAL AUTHENTICATION PROGRAM
Inventors: Kenji KONDO, et al.
Atty. Ref.: 5077-000222/NP

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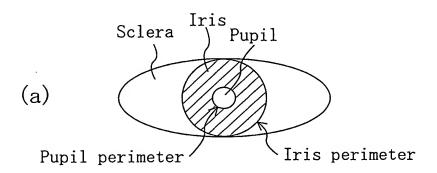
FIG. 7



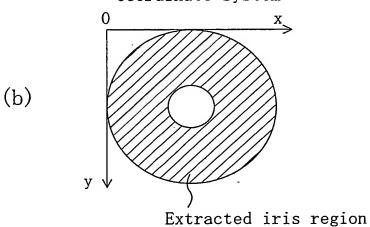
there is a first the same of

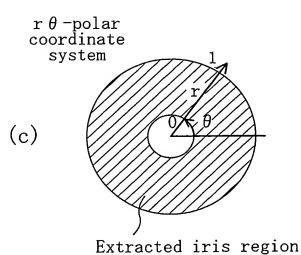
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FIG. 8



xy-rectangular coordinate system

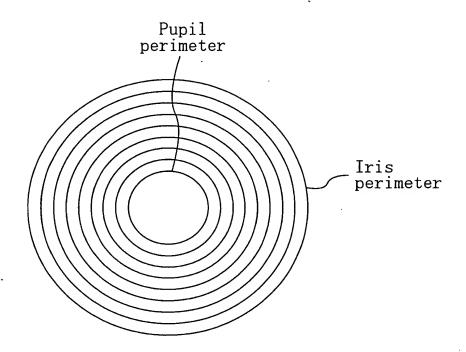




Title: PERSONAL AUTHENTICATION METHOD, IRIS REGISTRATION DEVICE, IRIS AUTHENTICATION DEVICE, AND PERSONAL AUTHENTICATION PROGRAM Inventors: Kenji KONDO, et al. Atty. Ref.: 5077-000222/NP

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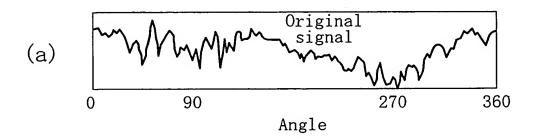
FIG. 9

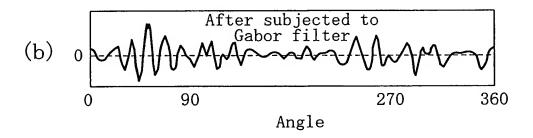


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FIG. 10





(c)

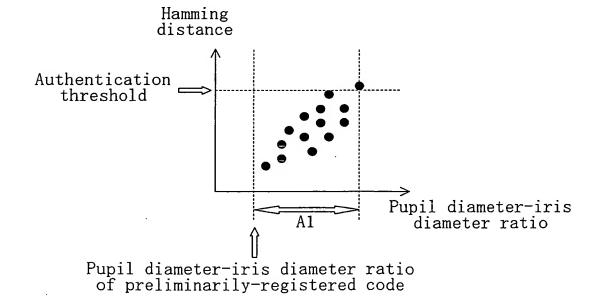
Angle

', Inventors: Kenji KONDO, et al. Atty. Ref.: 5077-000222/NP 10/506311

FIG. 11

Code No.	0	1	2	3	4	5	6	7	8	9
0		0. 15	0. 20	0. 24	0. 31	0. 34	0. 38	0. 41	0. 42	0. 41
1			0. 16	0. 22	0. 24	0. 32	0. 37	0. 38	0. 40	0. 42
2				0. 14	0. 21	0. 26	0. 30	0. 34	0. 37	0. 39
3					0. 13	0. 18	0. 24	0. 29	0. 37	0.40
4						0. 16	0. 22	0. 28	0. 31	0. 36
5							0. 13	0. 19	0. 24	0. 28
6								0. 14	0. 21	0. 24
7					·	-			0. 15	0. 19
8										0. 12
9										

FIG. 12



Title: PERSONAL AUTHENTICATION METHOD, IRIS REGISTRATION DEVICE, IRIS AUTHENTICATION DEVICE, AND PERSONAL AUTHENTICATION PROGRAM Inventors: Kenji KONDO, et al. Atty. Ref.: 5077-000222/NP

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FIG. 13

Iris code No.	Registrant No.	Pupil diameter-iris diameter ratio	
00000	00000	0. 21	
00001	00000	0. 39	
00002	00000	0. 58	
00003	00001	0. 19	
00004	00001	0. 42	
00005	00001	0. 61	
•••	•••	•••	
N-1	M-1	0. 62	

Title: PERSONAL AUTHENTICATION METHOD, IRIS REGISTRATION DEVICE, IRIS AUTHENTICATION DEVICE, AND PERSONAL AUTHENTICATION PROGRAM Inventors: Kenji KONDO, et al.

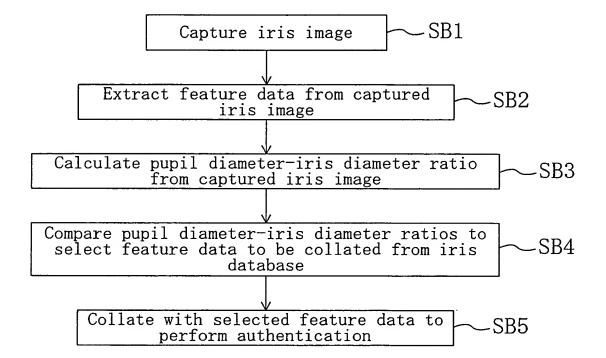
Attv. Ref: 5077-000200/ND

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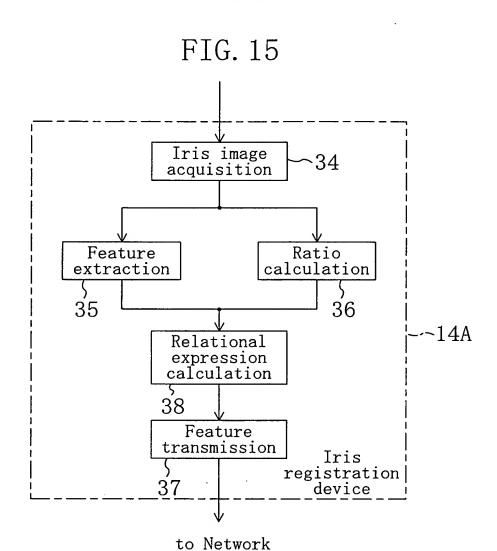
FIG. 14

Authentication process



Title: PERSONAL AUTHENTICATION METHOD, IRIS REGISTRATION DEVICE, IRIS AUTHENTICATION DEVICE, AND PERSONAL AUTHENTICATION PROGRAM
Inventors: Kenji KONDO, et al.
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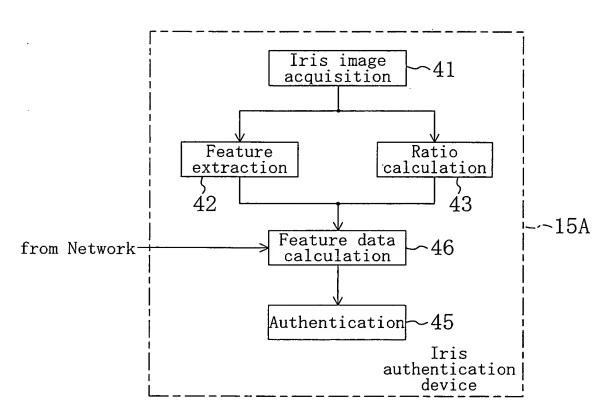
Title: PERSONAL AUTHENTICATION METHOD, IRIS REGISTRATION DEVICE, IRIS AUTHENTICATION DEVICE, AND PERSONAL AUTHENTICATION PROGRAM Inventors: Kenji KONDO, et al.

Atty. Ref.: 5077-000222/NP

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FIG. 16

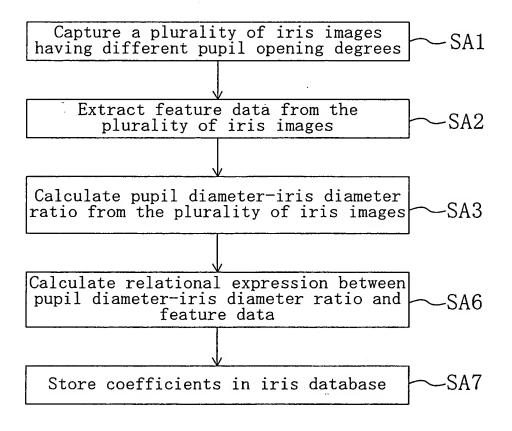


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FIG. 17

Registration process



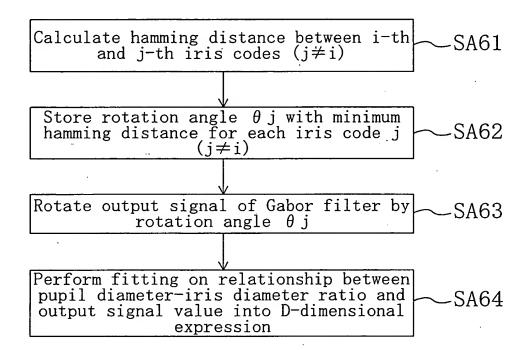
Title: PERSONAL AUTHENTICATION METHOD, IRIS REGISTRATION DEVICE, IRIS Inventors: Kenji KONDO, et al. 为我想见了我们,我们还是想见

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FIG. 18

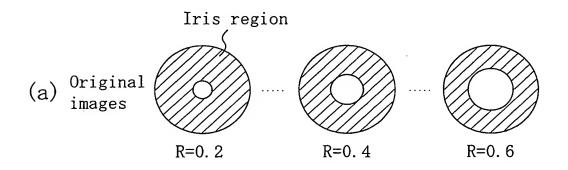
<u>SA6</u>

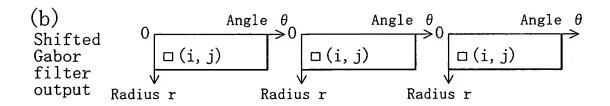


Inventors: Kenji KONDO, et al. Atty. Ref.: 5077-000222/NP

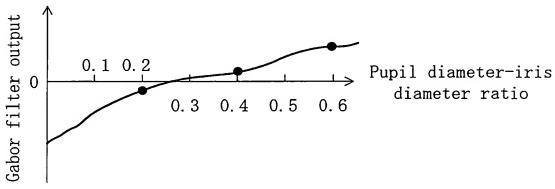
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FIG. 19





Variation in Gabor filter output at specific coordinate (i, j) (c)



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Inventors: Kenji KONDO, et al. Atty. Ref.: 5077-000222/NP

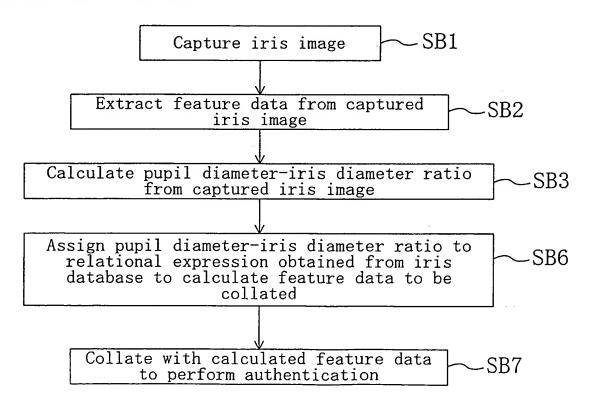
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FIG. 20

Feature data No.	Registrant No.	Parameters
00000	00000	ao, o~ao, z-1, bo, o~bo, z-1, co, o~co, z-1, do, o~do, z-1
00001	00001	a1,0~a1,z-1,b1,0~b1,z-1,c1,0~c1,z-1,d1,0~d1,z-1
00002	00002	a2, 0~a2, z-1, b2, 0~b2, z-1, c2, 0~c2, z-1, d2, 0~d2, z-1
	•••	•••
N-1	N-1	an-1, 0~an-1, z-1, bn-1, 0~bn-1, z-1, cn-1, 0~cn-1, z-1, dn-1, 0~dn-1, z-1

FIG. 21

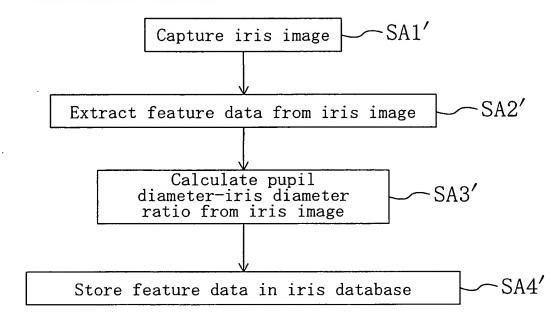
Authentication process



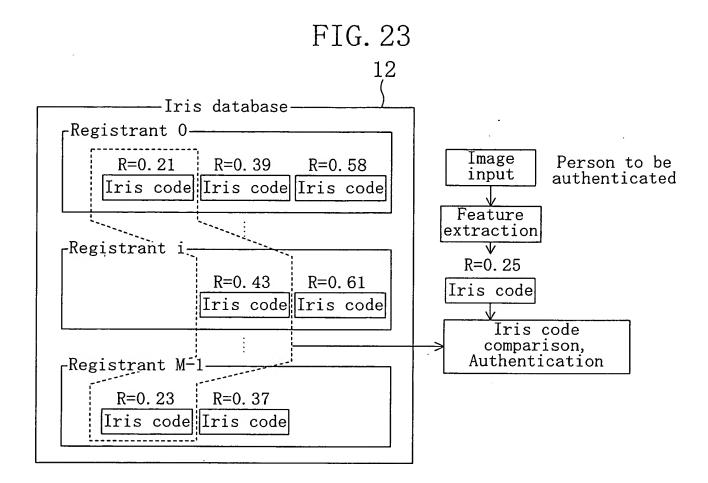
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FIG. 22

Registration process



Title: PERSONAL AUTHENTICATION METHOD, IRIS REGISTRATION DEVICE, IRIS AUTHENTICATION DEVICE, AND PERSONAL AUTHENTICATION PROGRAM Inventors: Kenji KONDO, et al. Atty. Ref.: 5077-000222/NP

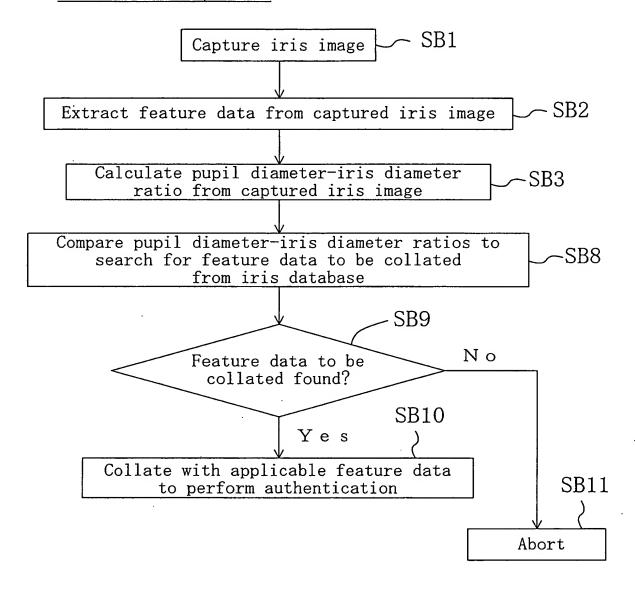


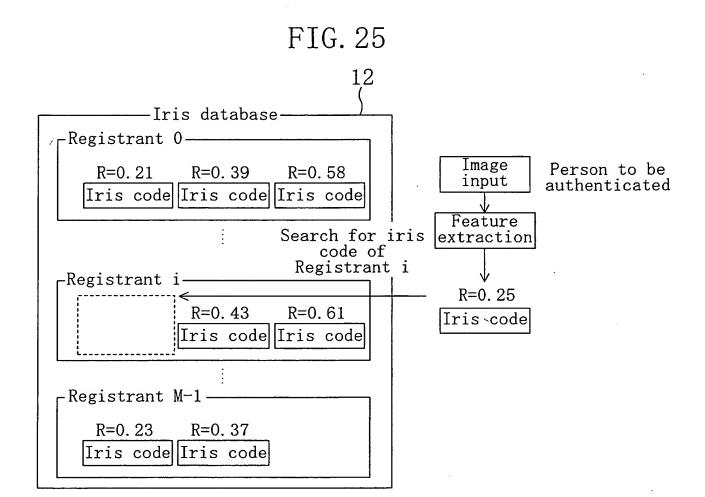
Atty. Ref.: 5077-000222/NP

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FIG. 24

Authentication process



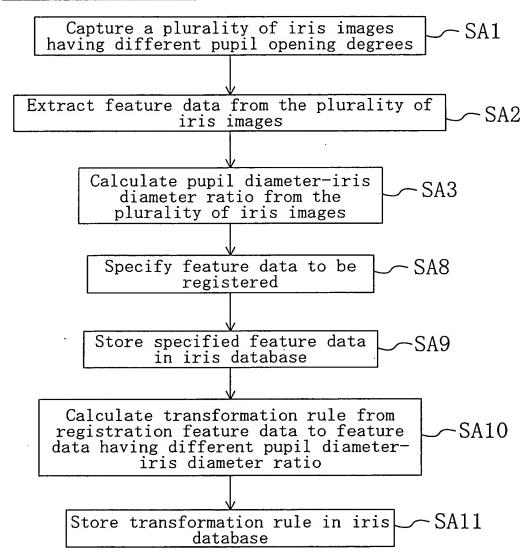


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FIG. 26

Registration process

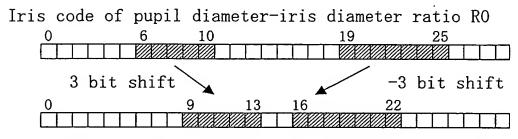


e: PERSONAL AUTHENTICATION METHOD, IHIS REGISTRATION PROGRAM AUTHENTICATION DEVICE, AND PERSONAL AUTHENTICATION PROGRAM Inventors: Kenji KONDO, et al. 10/506311 Title: PERSONAL AUTHENTICATION METHOD, IRIS REGISTRATION DEVICE, IRIS

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FIG. 27



Iris code of pupil diameter-iris diameter ratio R1

FIG. 28

	_	
Registration code ID	Pupil diameter-iris diameter ratio in authentication process	Transformation rule
0	RO	 Shift Ath to Bth bits by C bits
		 Shift Dth to Eth bits by F bits
		• • •
	R1	• Shift Gth to Hth bits by I bits
		• • •
	• • •	• • •
	• • •	• • •
i	• • •	• • •
	• • •	• • •

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FIG. 29

Authentication process

